

Effect of Body Image Satisfaction on Outcomes Among Women Undergoing Different Types of Breast Surgeries

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Abstract: body image satisfaction has important effect on psychological status for women with breast surgery. The present study aimed to evaluate impact of body image satisfaction on outcomes among women with different types of breast surgeries. Research design, one shot case research design was utilized to conduct data of this study on a convenience sample of available patients (30), female adult patients undergoing breast surgery. Setting: the study was conducted at plastic surgical department in Assiut University Hospitals. Tools: data were collected through: three tools; the structured interview questionnaire, patient assessment sheet and body image satisfaction questionnaire. Results: There are statistically significant differences for the study group as regards psychological state assessment pre / post 4 weeks. There was statistically significant difference as regarded pre and posttest total score for body image satisfaction about breast surgery. Conclusion: There is a significant differences improvement throughout implementation of body image satisfaction on outcomes for female with different types of breast surgeries. Recommendation, the study recommended that, pamphlets and simple illustration booklet should be available for patients illiterate to with simple explain how to safely live after breast surgery.

Keywords: Body Image, Satisfaction, Outcomes, Nursing & Breast Surgery.

1. INTRODUCTION

Breasts are often emphasized by society as a symbol of femininity or sexuality. Women seek breast surgery in order to be more attractive. It is generally believed that breast surgeries can improve women's quality of life and wellbeing. Breast surgery typically can be divided into three general categories: reduction, augmentation, and reconstruction. Breast reduction surgery, is a procedure used to remove excess fat, tissue and skin from the breasts. If the patient has large breasts, she might choose to have breast reduction surgery to achieve a breast size proportionate to the body (Bohidar and Anannya, 2015).

Breast augmentation is performed to enhance the appearance, size and contour of a woman's breasts. Women consider breast augmentation for different reasons. Some women feel their breasts are too small in relation to their body contour. Some women desire augmentation after size loss associated with pregnancy and lactation (Nichter et al., 2018).

Breast reconstruction refers to rebuilding a breast lost to cancer or other disease and often involves multiple procedures performed in stages and can either begin at the time of mastectomy or be delayed until a later date (Walker, et al, 2019).

Body image refers to a person's perception of their physical self and the thoughts and feelings, positive, negative or both, which result from that perception (Rhondali et al., 2015). The removal of the entire breast causes loss of symmetry, an obvious change in physical appearance can therefore impact upon body image, feelings of femininity, sexuality and sense of self, especially women with a high expectation of physical beauty (Li et al., 2016). The loss of breast is often experienced more negatively. Negative body image can affect mood of the woman and her interpersonal relationships, lead to social stigmatization, and social isolation. Also, body image disturbance may be associated with a variety of changes (e.g., psychological distress, anxiety, reduced physical health, sexual dysfunction). Because of all these reasons, all women have concerns regarding body image. Therefore, it is important to recognize range of bodily changes in a woman after mastectomy or who undergoing reduction or augmentation surgery (Bagheri, et al, 2015).

To improve self-esteem and body image, women attempt to improve the appearance of their bodies. Post-operative patient surveys about the mental health and the quality of life of the women, reported improved physical health, physical appearance, social life, self-confidence, self-esteem, and satisfactory sexual functioning (American Cancer Society, 2015).

Discharge instructions post-surgery; do not engage in any activity that will cause pain, pulling or tightness on affected upper extremity. Use non-involved side to assist in the stand, do not sit for more than two to three hours at a time, take short frequent walks, no driving while on pain medications, and keep incision clean and dry, no creams or lotions. A follow up appointment with surgeon should be made as soon as possible. Report signs and symptoms to notify surgeon as : oral temperature greater than (38.8° C) for more than 24 hours, redness or drainage from the incision with an odor, bleeding from incisions(s), extreme swelling, nausea and vomiting, pain that does not respond to medication, persistent constipation or rash (Powers et al., 2017).

Significance of the study

The breast is the most important external identification of femininity, and the loss of a breast can have bad psychological effects on a woman. A woman who lost a breast may feel, insecure, inferior to other women, or undesirable to men. This research studying the effect of a care bundle on outcomes for patient undergoing breast surgery. According to Assiut University Hospitals report there were nearly 33 case cosmetic breast surgery performed in the year of 2019 .This research helped health care team to improve outcomes for patient with each type of breast surgeries (Plastic surgical department at Assiut University Hospitals report, 2019).

Aim of the study

The aim of this study was to: Evaluate the effect of body image satisfaction on pain and psychological status among women undergoing different types of breast surgeries

Research hypothesis

To fulfill the aim of the study the following research hypothesis was formulated :

Patient with body image satisfaction will be reduce pain and improve psychological status

2. RESEARCH DESIGN

One shot case research design was utilized to conduct data of this study. In this research design a single experimental group was exposed to a treatment (intervention) and observations are made after implementation of treatment.

Setting

The study was conducted in the plastic surgical department in Assiut University Hospitals.

Subjects

Sample of 30 female adult patients undergoing breast surgery, who distributed as the following (10 reduction, 10 augmentation and 10 reconstruction of breast surgery patients).

Inclusion criteria

- 18-65 years of age

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- No contraindications for anesthesia
- Non-smokers
- No systemic diseases that may have influence on the breast surgery as diabetes mellitus
- Agree to participate in the study

Sampling

This sample was selected by using the following equation according to (Steven and Thompson, 2012):

$$n = \frac{N \times p(1-p)}{\left[\left[N - 1 \times \left(d^2 \div z^2 \right) \right] + p(1-p) \right]}$$

N = total patient population size of 32 who attended the plastic surgery department at Assiut university hospitals during year 2019- 2020.

Z = confidence levels is 0.95 and is equal to 1.96

D = the error ratio is = 0.05

P = the property availability ratio and neutral = 0.50

Note: selecting patient depended on the decreasing number of patients undergoing breast surgery per month in Assuit University Hospitals.

Tools

Three tools were used in this study to investigate the effect of body image satisfaction on pain and psychological status among women undergoing different types of breast surgeries by the researcher based on reviewing of related literatures; (Cohen et al., 1983), (Gould et al., 2001) and (Festinger, 1954).

Tool I: The Structured Interview Questionnaire (SIQ); It was developed by the researcher based on current literature, to assess demographic data, clinical data and patient knowledge Pre & post, this tool was consisting of three parts:

Part 1: Socio demographic data; it included patient's name, age, sex, level of education, marital status and occupation .

Part 2: Clinical data; it included medical diagnosis, length of hospital stay and measurements of height, weight and BMI....etc.

Part 3: Pre & post-test patient knowledge assessment questionnaire: it included definition, indications, nutrition, postoperative exercise, wound care, complications and follow up.

Total scoring system of tool I:

According to total score of interview questionnaire knowledge of patients classified into:

- Satisfied more than 50%
- Unsatisfied less than 50%

Tool (II): Patient assessment sheet:

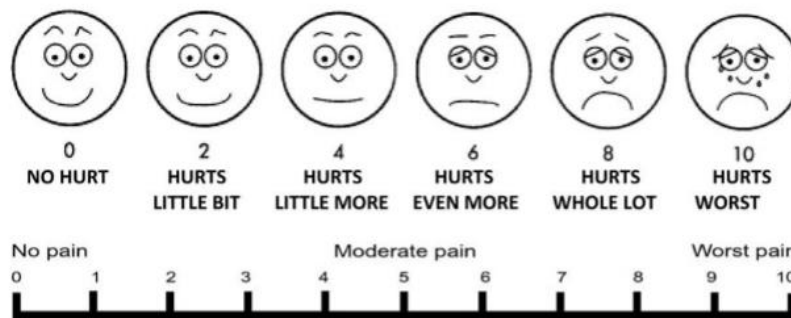
Part (1): Pain visual analogue scale (PVAS); is a measurement instrument developed by (Gould et al., 2001) that tries to measure a characteristic or attitude that is believed to range across a continuum of values and cannot easily be directly measured. It measures shoulder pain intensity. It is graduated on 10 cm line, with anchors at the end points of Zero that indicates (no pain at all) to 10 (worst pain) (Gould et al., 2001).

- 0 = No pain
- 2 = Discomfort or (mild pain)
- 5 = Pain that interrupts your ability to relax and rest (moderate pain)

- 7 = Pain that wakes you up from a sound sleep (severe pain)
- 10 = Excruciating pain:

Scoring system of pain visual analogue scale:

- According to score of pain visual analogue scale each category was observed, categorized, and scored into either yes = 1 or no = 0.



Part (2): Psychological State Assessment pre/ post 4 weeks: Using perceived stress scale (PSS) it consists of 10 items (Cohen et al., 1983). The questions in the PSS ask about feelings and thoughts during the last month. In each case, respondents are asked how often they felt a certain way. PSS scores are obtained using Likert scale (0 = never, 1 = almost never, 2 = sometimes, 3 = fairly often, and 4 = very often). Responses are to be reversed (e.g., 0 = 4, 1 = 3, 2 = 2, 3 = 1, and 4 = 0) to the four positively stated items (items 4, 5, 7, and 8) and then summing across all scale items. It was done pre and post implementation of the nursing bundle of care. Individual scores on the PSS can range from 0 to 40 with higher scores indicating higher perceived stress:

- Scores ranging from 0-13 was considered low stress.
- Scores ranging from 14-26 was considered moderate stress.
- Scores ranging from 27-40 was considered high perceived stress.

Tool (III): Body Image Satisfaction Questionnaire (BISQ): According to theory of social comparison, people have an innate desire to evaluate themselves, and they do so by comparing themselves with others when objective standards are unavailable. These comparisons tend to occur with others who have similar attributes such as age, race, appearance, and other dimensions that are self-relevant (Festinger, 1954).

Scoring system of body image satisfaction questionnaire: Body image satisfaction questionnaire about breast surgery which includes 12 questions, each question was observed, categorized, and scored into either agree = 1 or don't agree = 0 on all questions.

Procedure

The study was carried out on three phases:

(1) The preparatory phase (assessment and planning phase)

Tools development

The researchers developed the study tools after extensive review of relevant literature of the current study, local & international, using text books, articles, and scientific magazines. This phase ended by a pilot study.

Content validity and reliability:

The content validity of study tools were checked by 5 expert professors in field of nursing and medical they reviewed the instruments for clarity, relevance, comprehensiveness, understanding, applicability and easiness for administrative minor modifications that required. Correction was carried out accordingly and then the tools were designed in their final format

and tested for reliability. As for the reliability tool (III) was confirmed for consistency by Cronbach's alpha coefficient ($\alpha=0.78$).

A pilot study

A pilot study carried out in mid-January (2020) to test the feasibility and practicability of the study tools and conducted on (10%) of the sample (3 patients). It had also provided an estimate of time needed to fill out the tools.

Administrative design

An official permission to conduct the study was obtained by the researcher from the head of plastic surgical department to collect the necessary data, after explain the aim of the study to them to obtain their cooperation. Also the researcher meet with the patient to explain the objectives and contents of these tools after obtaining the patient consent for this study.

Ethical Considerations

After a written approval of the research proposal by the Research Ethics Committee of the Faculty of Nursing, Sohag University is obtained; an official permission was taken from hospital administrators to conduct the study. The purpose and nature of the study as well as the importance was explained to the potential participants who meet the inclusion criteria. The investigator emphasized that anonymity and confidentiality were assured through coding the data and the data wasn't reused in another research without their acceptance. Signed consent was obtained from patients who accepted to be included in the study. Participants were assured that participation in this study was voluntary and they have the right to withdraw from the study at any time without any penalty.

(2) Implementation phase

The nursing care bundle had been implemented for the pre-operative group in term of sessions. This sessions aimed to evaluate the effect of nursing care bundle to improve outcomes for women undergoing breast surgeries. The nursing care bundle was developed by the researchers based on the review of relevant literature and available resources.

- Data were collected from plastic surgical department at Assuit University Hospital for 6 months during the period from January 2020 to August 2020 .
- The study was carried out at morning shifts for all available patients and by telephone.
- At initial interview the researcher introduced herself to initiate line of communication, explained the nature and purpose of the study to the selected patients who are willing to participate in the study and filled out the questionnaire sheet tool (1) to assess the patient's demographic and clinical data.
- After assessment of the patients using the structured interviewing questionnaire sheet tool (1) that filled by the researcher to assess general knowledge of patient for breast surgeries. Assess pain level by using tool (2) that filled by the researcher.
- The researcher prepared booklet using simple language, contained diagram and illustrated photos. It has developed by research based on patients' needs and relevant literatures. It included all contents of nursing care bundle.
- The patients was divided into small group contain of (2-4 patients).
- The nursing education was conducted through (3sessions) and the duration of each session was around 20 to30 minutes include 10 minutes for discussion and feedback .
- Each of the following session usually started by a briefing about what had been discussed in the previous session, using simple Arabic Language .
- Each session ended by a summary of what has been taught during the previous session and the objectives of new topics.
- Feedback and reinforcement of teaching was performed according to patient's needs to ensure their understanding. Each patient in the preoperative group obtains a copy of the teaching booklet. The researcher used pictures for illustration, and diagram to educate the patient.

-**The first session** included; information about breast surgery; definition, indications and contraindications of breast surgery.

-**The second session** included theoretical part of nursing care bundle for patients: preoperative instructions, laboratory investigations and postoperative complications.

-**The third session** included; preoperative preparation, postoperative diet and exercise, pain management, surgical site infection, pre & post-operative care bundle elements and instructions on discharge .Before discharge the investigator emphasized the importance of follow up visit for all subjects and arranged the time and place for follow up which were 4th week postoperatively in outpatient plastic surgical clinic at Assiut University Hospitals.

(3) Evaluation phase (follow up phase)

The last phase of proposed nursing management is the evaluation phase. After implementation the patient knowledge and practices have been evaluated by the researcher. A line of contact was established between the investigator and subjects of both groups for feedback, monitoring, and provision of needed consultation and help. The patients was evaluated after 4 weeks from 1st interview post implementation of the nursing care bundle using tool V.

Statistical design

The data were tested for normality using the Anderson-Darling test and for homogeneity variances prior to further statistical analysis. Categorical variables were described by number and percent (N, %), where continuous variables described by mean and standard deviation (Mean, SD). Chi-square test and fisher exact test used to compare between categorical variables where compare between continuous variables by independent t-test. A two-tailed $p < 0.05$ was considered statistically significant. All analyses were performed with the IBM SPSS 20.0 software.

Limitations of the study

1. Since the researcher was the only data collector, this study did not include patients monitoring for 24 hours. So, it was impossible to be sure if flap assessment sheet were properly applied.
2. Investigation findings are limited in Generalizability because the sample was selected from one geographical area in Arab Republic of Egypt (Assiut University Hospitals).
3. Patients flow was little.

3. RESULTS

Table 1: Frequency distribution of patient regarding demographic data n=30

Variables	N	%
Age by group		
48 - <58 y	13	43.3
28 - <38 y	16	53.3
18 - <28 y	1	3.3
Marital status		
Married	25	83.3
Widowed	5	16.7
Educational level		
Educated	30	100.0
Address		
Urban	30	100.0
Types of breast surgery		
breast augmentation	10	33.3
breast reduction	10	33.3
breast reconstruction	10	33.3
Medical diagnosis		
hypoplasia	10	33.3

hypertrophy	10	33.3
Breast defect	10	33.3
Length of hospital stay		
One day less than three day	19	63.3
More than three days	10	33.3
Body mass index	30.40±2.89	

^{Ns} No statistically significant difference (p>0.05)

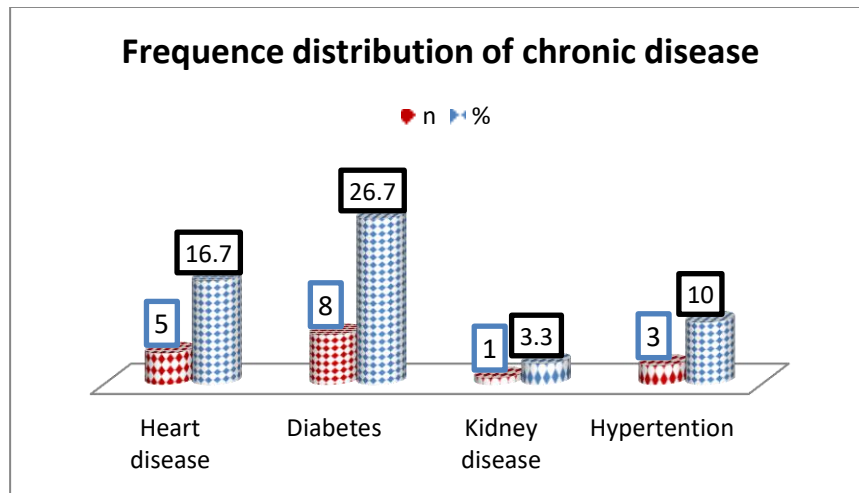


Figure (1): Frequency distribution of chronic disease among patient participant

Table 2: Comparison between pre / post 4 weeks regarding regarding patient knowledge (n=30)

Knowledge	Pre				Post				P.value X2
	know		Don't know		know		Don't know		
	N	%	N	%	N	%	N	%	
Knowledge about exercises:									
Do you know that exercises are important after breast surgery	22	73.3	8	26.7	27	90.0	3	10.0	001**
Do you know types of shoulder exercises done postoperatively	0	0	30	100	30	100	0	0	(.000) 60.00(.001)
Do you know the deep breathing exercise?	16	53.3	14	46.7	21	70.0	9	30.0	.001
Knowledge about Nutrition									
What is the type of a good diet that must be eaten post-surgery to fasten recover	2	6.7	28	93.3	30	100	0	0	(52.50) - .001
Knowledge about medication									
Do you know what medications you should take after the operation	2	6.7	28	93.3	30	100	0	0	(52.50) - .001
Knowledge about wound care									
Do you know care of your wound after discharge from hospital?	24	80.0	6	20.0	30	100.0	0	0	.001**
What are the symptoms and signs of infection that should be reported to your physician?	10	33.3	20	66.7	21	70.0	9	30.0	.001**
Knowledge about follow up:									
Do you know first follow up visit?	0	0	30	100	30	100	0	0	(.000) 60.00(.001)
Do you know the instructions to be followed after discharge from the hospital	0	0	30	100	30	100	0	0	(.000) 60.00(.001)

Chi-Square with P.value =0.05> not significance p<=.05 significance p=0.001 highly significant

Table 3: Comparison between pre / post 4 weeks regarding body image n=30

Body image	Pre-		Post		- X2	P.value
	N	%	N	%		
Are you happy with the way you look					(20.00) -	.001**
Yes	15	50.0	30	100.0		
No	15	50.0	0	0.0		
If you could, what would you change about your appearance					----	---
Face	0	0.0	0			
Parts of body	30	100.0	30	100.0		
Is the others' opinion about your appearance important for you					(1.017) -	.500ns
A lot	30.0	100.0	30.0	100.0		
A little	0	0.0	0	0.0		
Not at all	0	0.0	0	0.0		
Have you ever felt discriminated because of your physical appearance) 1.071 (.306ns
Yes	27	90.0	29	96.7		
No	3	10.0	1	3.3		
Have you ever gone on a diet or are you doing it now) 4.286 (.05*
Yes	26	86.7	30	100.0		
No	4	13.3	0	0		
If yes, who advised you					-----	---
A doctor	12	40.0	12	40.0		
A friend	2	6.7	2	6.7		
Yourself	16	53.3	16	53.3		
Are you satisfied with the results					(6.66) -	.01*
Yes	26	86.7	30	100.0		
No	4	13.3	0	0		
If not, are you determined to go on					4.28) - (.05*
Yes	26	86.7	30	100.0		
No	4	13.3	0	0		
What do you think makes a person attractive					-1.017 -	500ns
Slimness	0	0.0	0	0.0		
Beauty	30	100.0	30	100.0		
Character/Manners	0	0	0	0		
Have you got a model you wish you were like					-----	----
Someone in your family	30	100.0	30	100.0		
Actor (-tress)	0	0	0	0		
Top model	0	0	0	0		
Does happiness depend on physical appearance					(5.455) -	.02
A lot	30	100.0	30	100.0		
Partly	0	0	0	0		
Not at all	0	0	0	0		

Chi-Square with P.value =0.05> not significance p=<.05 significance p=0.001 highly significance

Table 4: Comparison between pre-post care regarding total body image n=30

Test used	Chi-Square and independent t-test with P.value =0.05> not significance p=<.05 significance p=0.001 highly significance			
	Pre- bundle of care		Post –bundle of care	
	n	%	n	%
Positive body image	10	33.3	22	73.3

Negative body image	20	66.7	8	28.6
P.value	9.643		- 0.002	
Mean ± SD	12.86±1.22		14.43±1.04	
	.001			

Table (5): Assessment of Pain for patient immediate post-operative and after 4 wks using visual Analogue Scale (n=30)

Follow up	Pain				X2	P.value
	mild	moderate	sever	Worst pain		
	N %	N %	N %	N %		
Post test	9 (30%)	18 (60%)	2 (6 %)	1 (3.3)	20.097 ^a	.001
after 4 weeks	17(56.7)	13 (43.3)	0(0.0)	0.0		

Table 6: Comparison between pre / post 4 weeks regarding psychological state assessment for the study group (n = 30).

Psychological state assessment		Never		Almost Never		Sometimes		Fairly Often		Very Often		P.V	X2
		N	%	N	%	N	%	N	%	N	%		
1. How often have you been upset because of something that happened unexpectedly?	Pre	2	6.7	4	13.3	0	0.0	16	53.3	8	26.7	0.01	12.356
	Post	0	0.0	0	0.0	6	20.0	14	46.7	10	33.3		
2. How often have you felt that you were unable to control the important things in your life?	Pre	0	0.0	0	0.0	16	53.3	14	46.7	0	0.0	0.002**	15.021
	Post	0	0.0	8	26.7	10	33.3	8	26.7	4	13.3		
3. How often have you felt nervous and “stressed”?	Pre	0	0.0	0	0.0	6	20.0	14	46.7	10	33.3	0.003**	13.771
	Post	0	0.0	2	6.7	18	60.0	6	20.0	4	13.3		
4. How often have you felt confident about your ability to handle your personal problems?	Pre	0	0.0	0	0.0	14	46.7	8	26.7	8	26.7	0.07ns	7.001
	Post	0	0.0	0	0.0	6	20.0	10	33.3	14	46.7		
5. How often have you felt that things were going your way?	Pre	0	0.0	4	13.3	9	30.0	11	36.7	7	23.3	0.22 ns	4.397
	Post	0	0.0	9	30.0	11	36.7	6	20.0	4	13.3		
6. How often have you found that you could not cope with all the things that you had to do?	Pre	0	0.0	3	10.0	12	40.0	6	20.0	9	30.0	0.001**	17.844
	Post	4	13.3	8	26.7	16	53.3	2	6.7	0	0.0		
7. How often have you been able to control irritations in your life?	Pre	4	13.3	2	6.7	12	40.0	10	33.3	2	6.7	0.13ns	7.002
	Post	0	0.0	0	0	12	40.0	14	40.0	4	13.3		
8. How often have you felt that you were on top of things?	Pre	0	0.0	0	0.0	16	53.3	14	46.7	0	0.0	0.002**	15.021
	Post	0	0.0	8	26.7	10	33.3	8	26.7	4	13.3		
9. How often have you been angered because of things that were outside of your control?	Pre	0	0.0	0	0.0	8	26.7	12	40.0	10	33.3	0.02*	7.43
	Post	0	0.0	0	0.0	10	43.3	17	56.7	3	10.0		
10. How often have you felt difficulties were piling up so high that you could not overcome them?	Pre	0	0.0	0	0.0	8	26.7	12	40.0	10	33.3	0.04*	8.031
	Post	0	0.0	4	13.3	10	33.3	13	43.3	3	10.0		

Chi-Square Tests * = Significant difference *p<0.05 ** = highly significance *p<0.01 Ns= Non significant difference P>0.05

Table 7: Comparison between pre / post 4 weeks regarding perceived stress for the study group (n = 30)

Variables	Pre		Post (4 weeks)		P.V	X2
	N	%	N	%		
• Low stress	0	0.0	10	33.3	.001**	18.358
• Moderate stress	13	43.7	16	53.3		
• High perceived stress	17	56.7	4	13.3		

Chi-Square Tests * = Significant difference $p \leq 0.05$ ** = highly significance $p \leq 0.01$

Table 8: Relation between age, types of operation and body image:

		Age	Type of operation	body image	knowledge	Practice
Age	Pearson Correlation	1	.208*	-.341-**	.048	
	Sig. (2-tailed)	-----	.049	.001	.656	
Type of operation	Pearson Correlation	.208*	1	-.231-*	-.035-	-.007-
	Sig. (2-tailed)	.049	-----	.028	.745	.946
body image	Pearson Correlation	-.341-**	-.231-*	1	.300**	-.223-
	Sig. (2-tailed)	.001	.028	-----	.004	.035
knowledge	Pearson Correlation	.048	-.035-	.300**	1	.075
	Sig. (2-tailed)	.656	.745	.004	-----	.480

*Correlation is significant at the 0.05 level (2-tailed).

Table (1) and figure (1): this table demonstrates that; about half of the sample of the study group their age range between (28 - <38 y) years old, and about three quarter of the study group were married 83.3%, all patient are educated , live in urban and working 100.0% . 63% of patient stay in hospital from one day to three days.

Table (2): This table illustrates that, there is statistically significant difference for the study group regarding knowledge pre / post 4 weeks after implementation of the nursing care bundle with $p \leq 0.01$

Table (3): this table demonstrates that; as regarded assessment of Pain Visual Analogue Scale, more than half of posttest sample suffered from moderate pain (60 %), very small sample suffered from severe pain (6 %) respectively. After 4 weeks more than half of sample suffered from mild pain (56.7 %). There is no statistically significant difference regarded assessment of Pain Visual Analogue Scale.

Table (4): this table demonstrates that; as regarded postoperative complications; there is highly significance difference of preoperative care bundle to prevent postoperative complications $p \leq 0.01$

Table (5): this table shows that; there are highly statistically significant difference as regarded body image satisfaction pre and posttest bundle of care were happy with the way they look (50% and 100%) respectively and statistically significant difference as regarded satisfied with the results, happiness depend on physical appearance, ever gone on a diet or are you doing it now and are you determined to go on (86.7%).

Table (6): the above table shows that; there was statistically significant difference as regarded pre and posttest total score for body image satisfaction about breast surgery (P. value =0.001**).

Table (7): This table illustrates that, there are statistically significant differences for the study group as regard psychological state assessment except how often have you felt confident about your ability to handle your personal problems , . How often have you felt that things were going your way and How often have you been able to control irritations in your life? , pre / post 4 weeks for the study group after implementation of the nursing bundle care.

Table (8): This table demonstrates that, there are statistically significant differences for the study group as regards psychological state assessment (perceived stress scale) pre / post 4 weeks for the study group after implementation of the nursing bundle care with $*p \leq 0.01$

Table (9): This table illustrates that, there are positive correlation between age, types of operation and body image for the study group ($P.V=0.001^{**}$)

4. DISCUSSION

The aim of this study was to: Evaluate the impact of body image satisfaction on outcomes among women undergoing different types of breast surgeries

The breast plays a significant role in a woman's sexuality and identification of herself as a female. Although advances in the diagnosis and treatment of breast disorders are changing the prognosis for breast disease, women's responses to possible breast disease include fear of disfigurement and loss of sexual attractiveness and fear of death. The woman with breast disease may undergo diagnostic testing, surgery, radiation therapy, chemotherapy, and hormonal therapy. Thus, nurses caring for patients with breast disease must have an in-depth understanding of these treatment modalities and expert assessment and clinical skills to address the physical and psychological needs of patients facing breast surgery. (Fazzino et al., 2017).

The present study findings that age 53.3% range between (28 - <38 y), this result agrees with (Jung et al., 2019) who mentioned that; younger patients (30–39 years of age) preferred for those surgeries (78.9%). Also disagrees with (Korean Breast Cancer Society, 2018) who mentioned that; sample rates by age, 48% of all patients who underwent breast cosmetic surgery in Korea were women aged 40–49 years old. As regarded marital status, the present study stated that the majority of sample was married (83.3 %). This result disagrees with (Hong et al., 2018) who mentioned that, the majority of sample was unmarried (80%).

According to (Rita et al., 2018) he not in the line of this study, he mentioned that regarding the sociodemographic characterization of the evaluated sample, it was verified that 71.1% of the women were over 50 years of age, with a mean of 56.99 years ($SD = \pm 10.45$). The majority were not married (52.9%), and had completed at least elementary school (54.5%).

As regarded BMI the present study stated that the sample was (30.40 ± 2.89) respectively. This result agrees with (Connor et al., 2016) who mentioned that; patient who performed breast surgeries risk factors for overall surgical complication included smoking, higher body mass index. BMIs of 25 to 29.9, 30 to 34.9, and 35 and above were more likely to undergo breast cosmetic surgery than women with BMIs less than 25.

As regarded chronic diseases, the quarter of the sample were diabetic patient (26.7 %). This result agrees with (Xie et al., 2015) who mentioned that quarter of females who undergoing breast surgery suffering from diabetes (30%).

The result in the present study revealed that, a great improvement in the knowledge score levels obtained by patients after implementation of nursing care bundle, the majority of sample were poor before implementation nursing care bundle while after implementation of nursing care bundle, most of sample in study group was improved. The present study is in the same lines of (Steiner et al., 2016) who stated that the nursing care bundle recommend before breast surgery as the most beneficial and cost effective management for motivated females with breast surgery. Also, agrees with (Ministry of Health and Welfare, 2018) who mentioned that the majority of posttest breast surgery females answered all questions about breast surgery than pretest group and there was statistically significant difference as regarded pre and posttest total score for level of knowledge about breast surgery ($P. value = 0.001^{**}$).

As regarded preoperative breathing exercise, the majority of sample didn't do the breathing exercise but after implementation nursing care bundle (66.7%) of patient done breathing exercise correctly. This result agrees with (Cheng et al., 2017) who suggested that, the majority of sample did the breathing exercise correctly after implementation of nursing care bundle (75%).

Preoperative shoulder range of motion exercise, less than half of the sample didn't do the shoulder range of motion exercise (33.3%) after shoulder range of motion exercise more than half of the sample did the shoulder range of motion

exercise correctly (70.0 %). This result agrees with (**American Society of Plastic Surgeons, 2018**) who mention that, the exercises also promote circulation of the lymphatic system, thus preventing swelling of the affected arm. Over-strenuous activities are to be avoided in the first few weeks after discharge. These exercises are to be done once daily, and each set of exercises is to be repeated 5 times.

As regarded assessment of Pain Visual Analogue Scale, more than half of posttest sample suffered from moderate pain (60 %), but after 4 weeks more than half of sample suffered from mild pain (56.7 %), This result disagrees with (**Hong et al., 2018**) who suggested that, after four weeks of follow up the majority of posttest sample suffered from severe pain.

As regarded wound care before discharge and follow up, most of the sample did the steps correctly (80 %). This study agrees with (**Stuiver et al., 2015**) who mentioned that the majority of sample did the steps of wound care correctly after implementation of nursing care bundle.

As regarded Surgical Site Infection; the quarter of the sample was low risk of surgical site infection (36.7 %). This result agrees with (**Bayraktar et al., 2015**), who mentioned that the importance of implementation of elements of care bundle to prevent postoperative infection as perioperative antibiotic prophylaxis, hair removal before surgery, perioperative normothermia and discipline in the operating room.

This result stated that there were better outcomes after implementation of care bundle. This result is in the same line of (**Zhou et al., 2016**) who mentioned that; Exercise improves inspiratory muscle endurance, functional mobility, reduces postoperative pain scores and anxiety, and improves quality of life indicated that preoperative exercise facilitates immediate postoperative recovery following breast surgery. Patients who are provided with information booklets about exercise have low risk of postoperative complications.

This study mentioned that, there was statistically significant difference as regarded pre and posttest total score for body image satisfaction about breast surgery (P. value =0.001**) and this is in the same line with (Koltz, et al, 2011) who stated that patient satisfaction is influenced by different factors such as overall outcome and specific breast features (size, shape, and symmetry). Also, factors other than the procedure itself, including personality traits, appearance investment, pain, scars, missing a nipple, and recovery time, may cause dissatisfaction. Satisfaction, positive effects on body image, 18 better sexual function, and better long- term health²⁰ may be among the reasons to opt for breast reconstruction. Thus, other factors such as quality of life, satisfaction, body image, and sexuality become important besides the treatment of the disease itself.

According to (Sterodimas, et al, 2011) it has been suggested that breast reconstruction, reduction and augmentation have effective means for restoring psychological well-being especially breast reconstruction after a mastectomy. A number of studies have documented the psychological, social, emotional, and functional benefits of breast reconstruction, including improved psychological health, 20–22 self-esteem, sexuality, and body image 6, 10, 20, 22–31 and reduced concerns of cancer recurrence. This result stated that, there are statistically significant differences for the study group as regards psychological state assessment (perceived stress scale) pre / post 4 weeks for the study group after implementation of the nursing bundle care with * $p \leq 0.01$. the satisfaction experienced by women in this position is not on the basis of the surgical result alone, but on a range of psychosocial factors and individual experiences. Satisfaction therefore has both objective and subjective facets.

In researcher view, Anxiety and depression are the most common psychological problems of women who have undergone a mastectomy. Breast reconstruction should therefore be a routine part of breast cancer surgery. Women who have undergone IBR are more likely to be satisfied with the aesthetic results achieved and are least likely to feel a loss of sexual attractiveness.

The present study showed that the importance of implementing nursing care bundle in improving postoperative outcomes for women undergoing breast surgery. This result agrees with (**Potter et al., 2016**) who mentioned that the effect of postoperative care bundle in improving postoperative complications, pain management and surgical site infection.

Finally, it can be concluded that, breast symmetry and patient appearance investment both significantly contribute to an understanding of patient-reported body image satisfaction during breast surgeries.

5. CONCLUSION

Based on the result of the present study, it can be concluded that; there was a significant improvements throughout body image satisfaction and outcomes among women undergoing different types of breast surgeries

Recommendations

Based on results of the present study, the following can be recommended:

I. For patients:

- Patients who have had breast surgery require additional verbal and written information about care bundle of diet and physical activity to improve postoperative outcomes.
- Pamphlets and simple illustration booklet should be available for illiterate patients to explain elements of care bundle should patient follow after breast surgery.
- Tell the patients about importance of regular follow up in regular time.
- Advice the patient regarding effective education and information are required to enhance understanding breast surgery.
- Preparation and provision of information should start from time of the surgeon's decision that surgery is required. The patients must visit the plastic surgery unit 2 weeks prior to surgery for the preoperative work up; to prepare them and provide information in the form of booklets, videos, and one to one counseling sessions.

II. For nurses:

- An in-service education center should be established within Assiut University Hospital to improve level of knowledge and performance of nurses. This department should be equipped with media and educational facilities.
- Systems for performance appraisal should be developed in order to periodically monitor the nurse's knowledge and performance.
- Encourage nursing staff in using new technologies as a new method of education such as computer, and internet for acquiring up to date all information related to management of patients with surgery.
- Nurses must actively participate in orientation regarding health promotion program, conferences in order to discuss patient's condition and recognize the view issues related to management of patients with breast surgery.

III. For research (future study):

- Importance of doing separate studies of breast surgery will helpfully lead to more effective and preventive – based strategies for future.
- Survey of incidence of complications after breast surgery should be done in order to recognize the prevalence of the problem all over Egypt.

Replication of the current study on larger probability sample is recommended to achieve generalized ability and wider utilization of the designed program.

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